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10/052,897	01/16/2002	Shi Baw Ch'ng	12144-010001	9091

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EXAMINER

ALAM, UZMA

ART UNIT PAPER NUMBER

2157

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,897

Applicant(s)

CH'NG, SHI BAW

Examiner

Uzma Alam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the arguments filed on October 5, 2005. Claim 10 has been amended for clarification. Claims 1-12 are pending. Claims 1-12 represent a system for managing network faults.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim Claims 1-3, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Rangaraian et al. US Patent No. 5,828,830. Rangaraian teaches the invention as claimed including a method and system for prioritizing and filtering traps from network devices (see abstract).

3. As per claim 1, Rangaraian teaches a method comprising
processing information about network faults that contribute to a failure of a network element in which the faults are occurring (a system is monitored and faults on the system are noted by an agent; column 2, lines 6-29; column 3, lines 58-67; column 4, lines 1-4), and
sending traps to a network management station with respect to fewer than all of the faults that are occurring, based on the results of the information processing (the agent sends traps to the

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network manager; column 2, lines 6-29; column 3, lines 57-67; column 4, lines 1-5; column 4, lines 20-67; column 5, lines 1-13).

4. As per claim 2, Rangaraian teaches the method of claim 1 in which the information is processed using a directed acyclic graph (column 4, lines 5-19; column 6, lines 14-33).

5. As per claim 3, Rangaraian teaches the method of claim 2 in which nodes of the graph represent entities of the network element (column 3, lines 9-29).

6. As per claim 7, Rangaraian teaches a method comprising
at a network management station, receiving traps sent from network elements, the traps including information about at least some faults occurring in entities of the network elements, the traps not including information about at least some faults occurring in the entities. reporting the traps to an operator of the network management station (a system is monitored and faults on the system are noted by an agent and the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).

As per claim 8, Rangaraian teaches the method of claim 7 also including reporting the traps to an operator of the network management station (the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 57-67; column 4, lines 1-5; column 4, lines 20-67; column 5, lines 1-13).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4-6, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangaraian et al. US Patent No. 5,828,830 in view of Rariden et al. US Patent No. 6,292,472. Rarident teaches the invention as claimed including checking faults in a network (see abstract).

As per claim 4, Rangaraian teaches the method of claim 1. Rangaraian does not teach in which the result of the processing comprises information about the causal relationships among at least some of the faults. Rariden teaches result of the processing comprises information about the causal relationships among at least some of the faults (column 3, line 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lins 58-67; column 4, lines 1-4).

9. As per claim 5, Rangaraian teaches the method of claim 1 in which traps are sent with respect to faults that have a relationship to other faults and traps are not sent with respect to at

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least some of the other faults (traps have different priority levels and some are even discarded; column 6, lines 46-67; column 7, lines 18-35). Rangaraian does not teach faults having causal relationships. Rariden teaches that faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lines 58-67; column 4, lines 1-4).

10. As per claim 6, Rangaraian teaches the method of claim 1. Rangaraian does not teach also including requesting fault information from an entity that is part of the network element and which has not triggered a fault notice to determine if there is a fault associated with the network element. Rariden teaches including requesting fault information from an entity that is part of the network element and which has not triggered a fault notice to determine if there is a fault associated with the network element (network elements are polled when no traps are received; column 3, lines 52-67; column 3, lines 35-49).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine polling faults of Ridden with determining faults of Rangaraian. A person of ordinary skill in the art would have been motivated to do this to not overlook any faults that may be occurring in the system.

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11. As per claim 9, Rangaraian teaches the method of claim 7 in which the traps the information included in the traps represents faults that have a relationship to other faults (traps have different priority levels and some are even discarded; column 6, lines 46-67; column 7, lines 18-35). Rangaraian does not teach faults having causal relationships. Rariden teaches that faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lines 58-67; column 4, lines 1-4).

12. As per claim 10, Rangaraian teaches Apparatus comprising
a network element having

network entities that are subject to faults, the faults of at least some others of the network entities having relationships to the faults of at least some of the network entities (a system is monitored and faults on the system are noted by an agent and the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).
a medium bearing information capable of configuring a machine in the network element to send traps (the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).

Rangaraian does not teach based on the causal relationships to a network management station. Rariden teaches that faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lines 58-67; column 4, lines 1-4).

13. As per claim 11, Rangaraian teaches a medium bearing information capable of configuring a machine to determine faults occurring in entities of a network element (a system is monitored and faults on the system are noted by an agent and the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13). Rangaraian does not teach determining causal relationships to a network management station. Rariden teaches determining the causal relationship between (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lines 58-67; column 4, lines 1-4).

14. As per claim 12, Rangaraian teaches the medium of claim 11 in which the information comprises a directed acyclic graph of nodes (column 4, lines 5-19; column 6, lines 14-33).

Response to Arguments

15. Applicant's arguments filed October 5, 2005 have been fully considered but they are not persuasive.

16. Applicant argues that the reference cited Rangaraian does not disclose or suggest “processing information about network faults..., and sending traps to a network management station *with respect to fewer than all of the faults* that are occurring based on the result of the information processing,” as recited in claim 1 and that Rangaraian does not disclose or suggest “traps *not including information about at least some faults* occurring in the entities,” as recited in claim 7.

17. In response to this argument, applicant is directed to column 2, lines 40-46 of the reference. In this passage, it is clear that not all the traps are sent to the network management station. If the trap has a filter of DISCARD, than the trap is ignored. This passage of the reference reads on the limitation of claims 1 and 7 that all faults are not processed. The claims states that first information is processed about network faults, and then sending traps to a network management station with respect to fewer than all of the faults that are occurring, based on the results of the information processing.

18. In Rangaraian, first all the faults are processed by an agent and the traps associated with each fault are assigned a relative priority. If the trap has a DISCARD or LOW priority flag, it is not sent to the network administrator, and hence not processed, see Rangaraian column 3, lines 58-67. Because not all of the traps are processed, based on their priority, Rangaraian teaches the limitations of claims 1 and 7.

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19. Applicant argues that the references Rangaraian and Rariden in combination do not disclose or suggest a causal relationship as recited in claim 10 of the application.

20. In response to applicant's argument, by applicant's own admission, claim 10 has a "very broad scope." Applicant also admits that "at most, the trap number indicates the relative sequential position of a trap in a series of traps." Here it is obvious that one possible causal relationship of "relative sequential position of a trap in a series of traps" found in Rariden reads on the very broad limitation of claim 10.

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

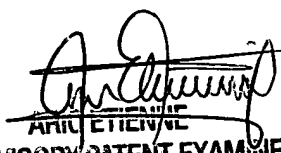
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uzma Alam whose telephone number is (571) 272-3995. The examiner can normally be reached on Monday-Tuesday 5:30 AM - 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Uzma alam
Ua
December 13, 2005


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